

Figure 1

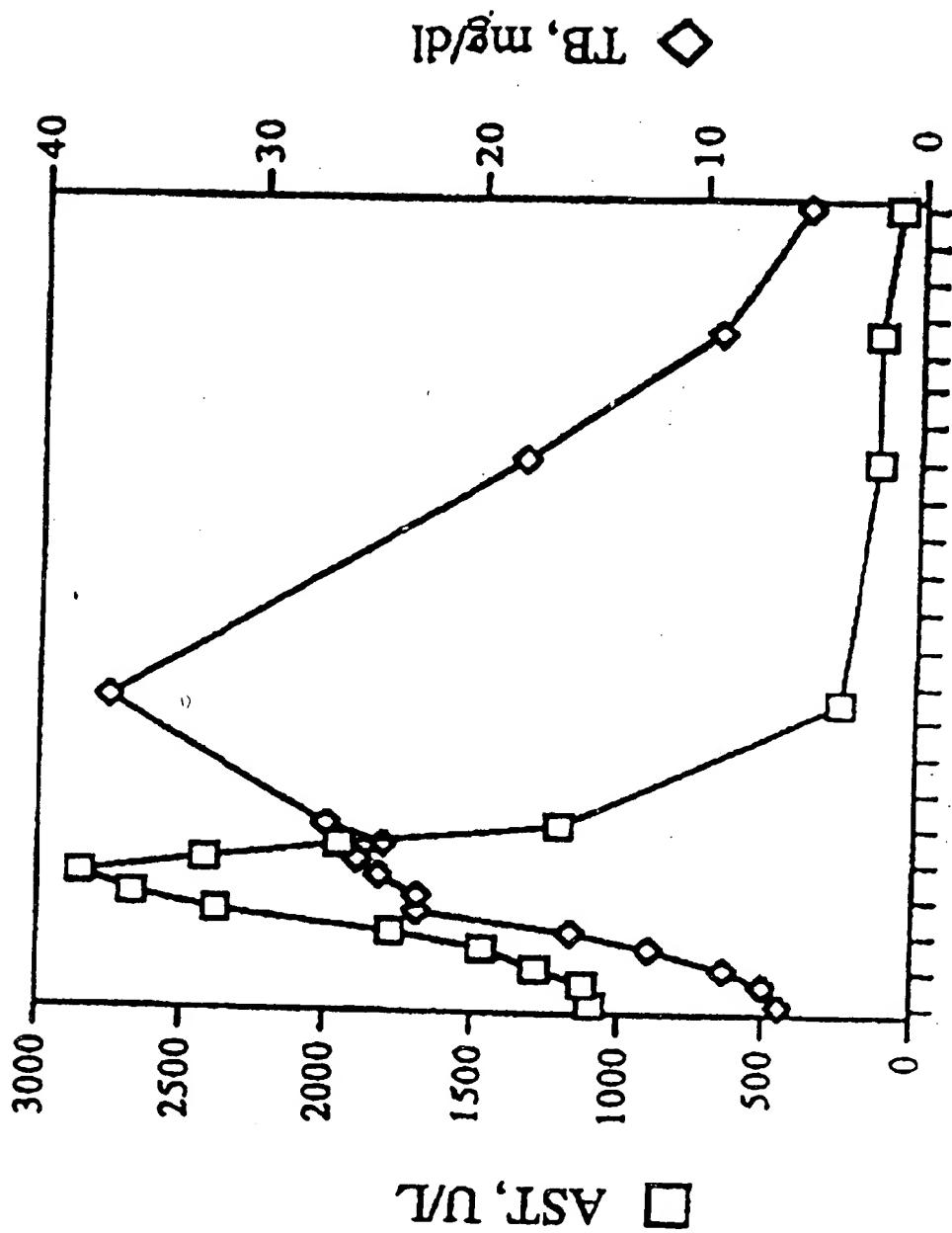


Figure 2

HEV US-1 Genome Extension

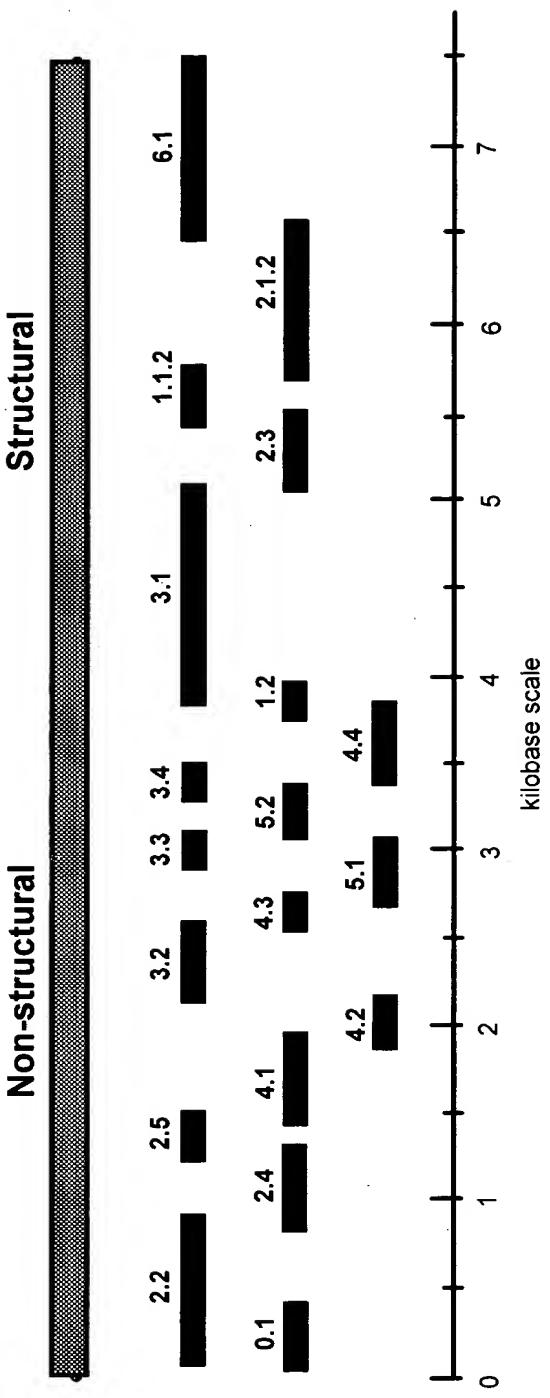


Figure 3

Extension of HEV US-2

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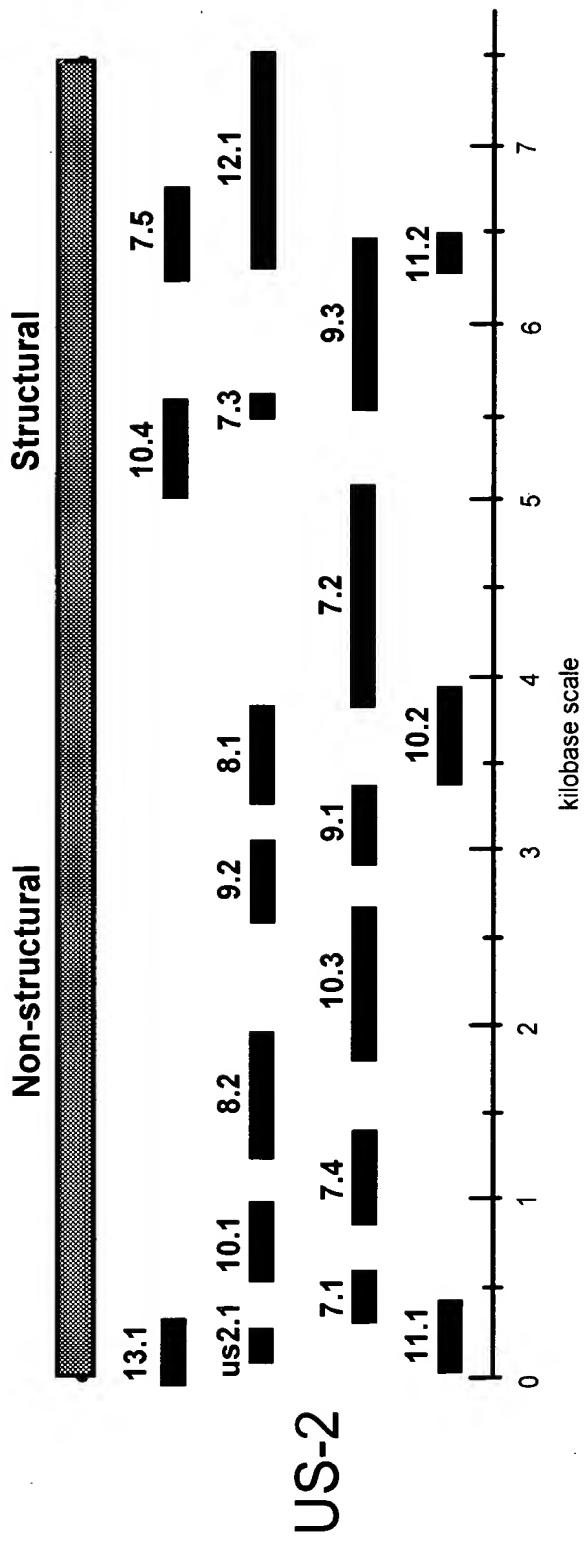


Figure 4

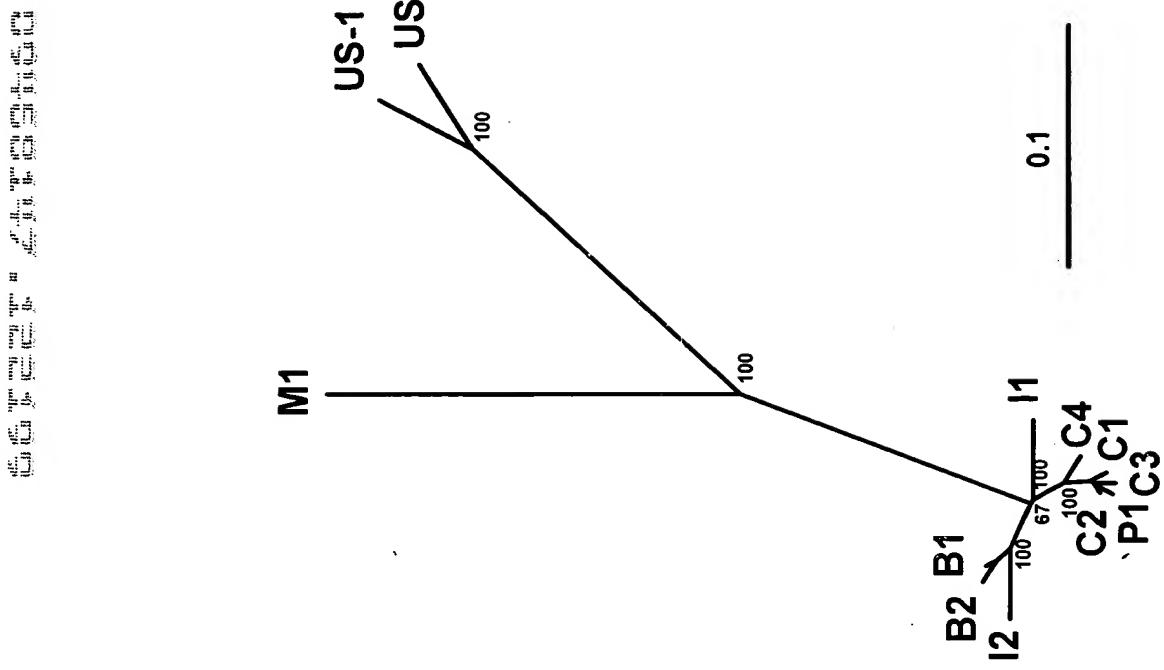


Figure 5

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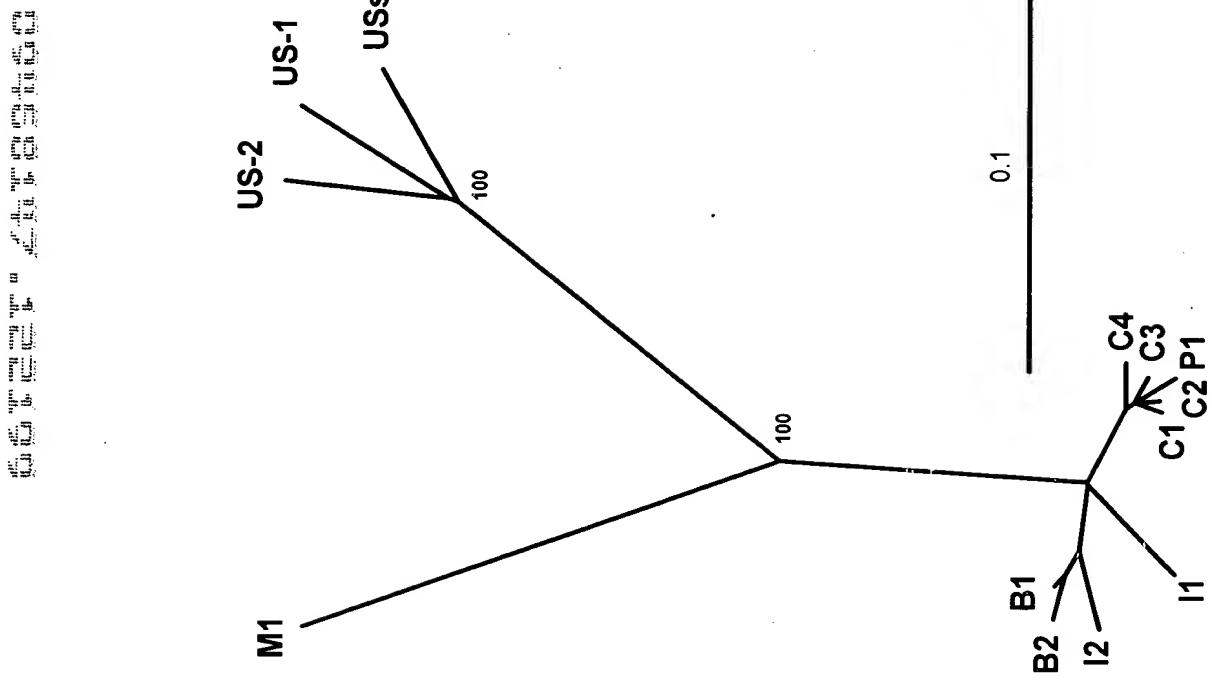


Figure 6

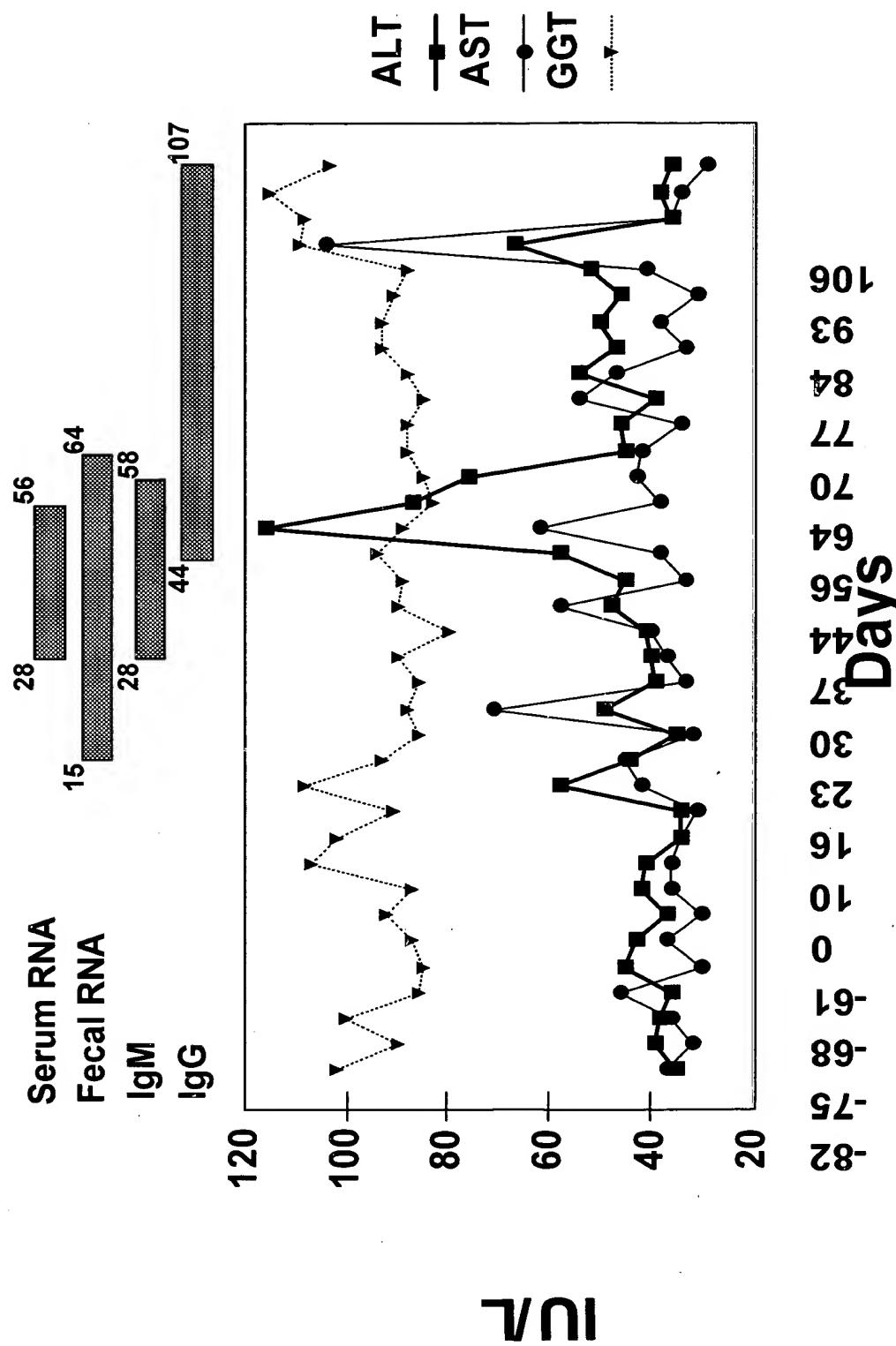


Figure 7

Extension of Z12

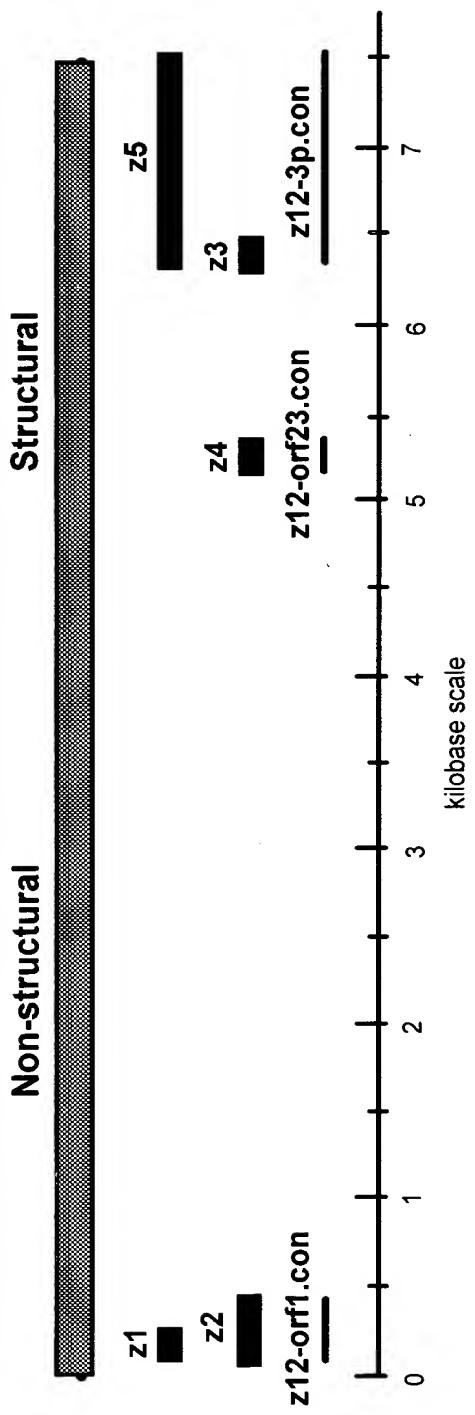


Figure 8

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FIGURE 9A

51 100
5p.pile{hpeuigh}
5p.pile{hpea}
5p.pile{84045p}
5p.pile{hpensis}
Consensus
GGCTCCTGGC ATCACTACTG CTATTGAGCA GGCTGCTCTA GCAGCGGCCA
GGCTCCTGGC ATCACTACTG CTATTGAGCA GGCTGCTCTA GCAGCGGCCA
GGCTCCTGGC ATCACTACTG CTATTGAGCA GGCTGCTCTA GCAGCGGCCA
~~~CCTGGC ATTACTACTG CCATTGAGCA GGCTGCTCTG GCTGGGCCA  
GGCTCCTGGC ATCACTACTG CTATTGAGCA AGCAGCTCTA GCAGCGGCCA  
---CTGGC AT- ACTACTG C-ATTGAGCA -GC-GCTCT- GC-GCGCCA

1:01 150  
5p.pile{hpeuigh}  
5p.pile{hpea}  
5p.pile{84045p}  
5p.pile{hpensis}  
Consensus  
ACTCTGCCCT GGCGAATGCT GTGGTAGTTA GGCCCTTTCT CTCTCACCA  
ATTCTGCCCT TGC GAATGCT GTGGTAGTTA GGCCCTTTCT CTCTCACCA  
ACTCTGCCCT TGC GAATGCT GTGGTAGTTA GGCCCTTTCT CTCTCACCA  
ATTCTGCCCT GGCGAATGCT GTGGTAGTTA GGCCCTTTCT ATCTCGCGTG  
ACTCCGCCCT TGC GAATGCT GTGGTAGTTA GGCCCTTTCT TCCCCATCAG  
A-TC-GCC-T -GCCAATGCT GTGGT-GT-- GGCC-TT--T -TC-C----G

151 200  
5p.pile{hpeuigh}  
5p.pile{hpea}  
5p.pile{84045p}  
5p.pile{hpensis}  
Consensus  
CAGATTGAGA TCCTCATTAA CCTAATGCAA CCTCGCCAGC TTGTTTCCG  
CAGATTGAGA TCCTTATTAA CCTAATGCAA CCTCGCCAGC TTGTTTCCG  
CAGATTGAGA TCCTTATTAA CCTAATGCAA CCTCGCCAGC TTGTTTCCG  
CAAACCGAGA TTCTTATTAA TTGATGCAA CCCGGCAGT TGTTTTCCG  
CAGGTTGAGA TCCTTATAAA TCTCATGCAA CCTCGCCAGC TGGTGTTCG  
CA---GAGA T-CT-AT-AA --T-ATGCAA CC-CG-CAG- T-GT-TT-CG

FIGURE 9B

|     |                                                                                                          |                                                                                                                                                                                                                                                                                                                                                               |
|-----|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 201 | 5p.pile{hpesvp}<br>5p.pile{hpeuigh}<br>5p.pile{hpea}<br>5p.pile{84045p}<br>5p.pile{hpensis}<br>Consensus | CCCCGAGGTT TTCTGGAATC ATCCCATCCA GCGTGTCA TC CATAACGAGC<br>CCCCGAGGTT TTCTGGAACC ACCCCATCCA GCGTGTCA TC CATAATGAGC<br>CCCCGAGGTT TTCTGGAACC ATCCCATCCA GCGTGTCA TC CATAATGAGC<br>CCCTGAGGTA CTTTGGAAATC ACCCTATCCA GCGGTTATA CATAATGAAT<br>TCCTGAGGTT TTTTGGAAATC ACCCGATTCA ACGTGTATTA CATAATGAGC<br>-CC-GAGGT- -T-TGGAA-C A-CC-AT-CA -CG-GT-AT- CATAAA-GA-- |
| 251 | 5p.pile{hpesvp}<br>5p.pile{hpeuigh}<br>5p.pile{hpea}<br>5p.pile{84045p}<br>5p.pile{hpensis}<br>Consensus | TGGAGCTTTA TGGAGCTTA TGGAGCTTA TGGAGCTTA TAGAACAGTA TTGAGCAGTA T-GA-C--TA -TG-CG-GC- CG--C-GG-C G-TG--T-GA --TTGG-GC-                                                                                                                                                                                                                                         |
| 301 | 5p.pile{hpesvp}<br>5p.pile{hpeuigh}<br>5p.pile{hpea}<br>5p.pile{84045p}<br>5p.pile{hpensis}<br>Consensus | CATCCCCGCT CACCCCGCT CACCCCGCT CACCAAGAT CACCCACGCT CA-CC--G-T C-AT-AA-GA -AA-CC-AA- GT--T-CA-C G-TG-TT-CT                                                                                                                                                                                                                                                    |
| 350 |                                                                                                          |                                                                                                                                                                                                                                                                                                                                                               |

FIGURE 9C

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|     |                                                                                                           |                                                                                        |                                                                                   |                                                                                    |                                                                                   |                                                                                        |
|-----|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 351 | 5p.pile{hpesvp}<br>5p.pile{hpeuigh}<br>5p.pile{hpea}<br>5p.pile{840455p}<br>5p.pile{hpenssp}<br>Consensus | CGGCCCTGTT<br>CGCCCCTGGCC<br>CGGTCCCTGCC<br>TAGACCGGTT<br>CCACCCGTC<br>----CC-G--      | GGGGGTGATG<br>GGGGGTGATG<br>GGGGGTGATG<br>GGCCGAGATG<br>GGCGGGATG<br>GG-CG-GATG   | TTCAGGGCTG<br>TTCAGGGCTG<br>TTCAAGGGTT<br>TTCAAGGGCTG<br>TTCAAGGGCTG<br>TTCAGGG-TG | GTATACTGCT<br>GTATACTGCT<br>GTATACTGCT<br>GTATACTGCC<br>GTACTCTGCC<br>CC-GA-C-GG- | CCCACCTGGCG<br>CCTACCCGGCG<br>CCTACCCGGCG<br>CCTACCCGGCG<br>CCCACCCGGCG<br>CC-AC--G-G- |
| 400 |                                                                                                           |                                                                                        |                                                                                   |                                                                                    |                                                                                   |                                                                                        |
| 401 | 5p.pile{hpesvp}<br>5p.pile{hpeuigh}<br>5p.pile{hpea}<br>5p.pile{840455p}<br>5p.pile{hpenssp}<br>Consensus | GCCCCGGCTG<br>GCCGGCTGC<br>GCCGGCTGC<br>GCCCTGGGC<br>GACCTGGGC<br>G-CC-GC-GC           | TAATTGCCGG<br>TAATTGCCGG<br>TAATTGCCGG<br>TAATTGCCGG<br>GAACCTGTCGC<br>-AA-TG-CG- | CGTTCCGGCG<br>GGTTCCGGAC<br>CGTTCCGGCG<br>CGCTCCGGCT<br>CGCTCCGGCT<br>CGCTCGGCAC   | TGCGGGGGCT<br>TGCGGGGCT<br>TGCGGGGCT<br>TGC GTGGTCT<br>TCG GTGGTCT<br>GCCACCAAGCC | TCCCCGGCT<br>CCCCGGCT<br>CCCCGGCT<br>CCCCGGCT<br>GCCACCAAGCC<br>-CC--C-GC-             |
| 451 |                                                                                                           |                                                                                        |                                                                                   |                                                                                    |                                                                                   |                                                                                        |
| 450 |                                                                                                           |                                                                                        |                                                                                   |                                                                                    |                                                                                   |                                                                                        |
| 500 | 5p.pile{hpesvp}<br>5p.pile{hpeuigh}<br>5p.pile{hpea}<br>5p.pile{840455p}<br>5p.pile{hpenssp}<br>Consensus | GACCGGCACTT<br>GACCGGCACTT<br>GACCGGCACTT<br>GACCGGCACTT<br>GACCGGCACTT<br>GACCGGCACTT | ACTGCCTCGA<br>ACTGCCTCGA<br>ACTGCCTCGA<br>ACTGCCTCGA<br>ACTGCCTCGA<br>ACTGCCTCGA  | CGGGTTTCT<br>CGGGTTTCT<br>CGGGTTTCT<br>CGGGTTTCT<br>CGGGTTTCT<br>CGGGTTTCT         | GGCTGTAACT<br>GGCTGTAACT<br>GGCTGTAACT<br>GGCTGTGCTT<br>CGTTGTGCTT<br>GGCTGTGCTT  | TTCCCCGGCA<br>TTCCCCGGCA<br>TTCCCCGGCA<br>TTGCTGCAGA<br>TTGCTGCCGTT<br>TTGCTGCCGTT     |

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FIGURE 9D

|      |                                                                                             |                                                                        |                                                                         |                                                                    |                                                                      |                                                                    |
|------|---------------------------------------------------------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------------------------------------|
| 1451 | 3p.pile{hpea}<br>3p.pile{hpeuigh}<br>3p.pile{hpesvp}<br>3p.pile{hpenssp}<br>3p.pile{hpensp} | ACTGAGTCAG<br>ACTGAGTCGG<br>ACTGAGTCAG<br>ACAGAGTCTG<br>ACAGAGACTA     | TGAAGCCAGT<br>TGAAGCCAGT<br>TAAACCAGT<br>TTAACCTAT<br>TTAACCTGT         | GCTTGACCTG<br>GCTCGACTTG<br>GCTCGACTTG<br>ACTTGACCTT<br>ACACACTCAA | ACAAATTCAA<br>ACAAATTCAA<br>ACAAATTCAA<br>TTATGCACCCG<br>TCATAACAGCG | T--T-<br>T-<br>T-<br>T-<br>T-<br>Consensus                         |
| 1501 | 3p.pile{hpea}<br>3p.pile{hpeuigh}<br>3p.pile{hpesvp}<br>3p.pile{hpenssp}<br>3p.pile{hpensp} | GGTGGAAATGA<br>GGTGGAAATGA<br>GGTGGAAATGA<br>GTCTGAATGA<br>GGTGGAAATGA | ATAAACATGTC<br>ATAAACATGTC<br>ATAAACATGTC<br>ATAAACATGTC<br>ATAAACATGTC | TTTGCTGCG<br>TTTGCTGCG<br>TTTGCTGCG<br>GTTTGCCTGCG<br>TTTGCATGGCG  | CCCATGGTT<br>CCCATGGTT<br>CCCATGGTT<br>CCCATGGTT<br>CCCATGGCG        | CGCGACCATG<br>GGCGACCATG<br>CGCGACCATG<br>CGCCACCATG<br>C...ACCATG |
| 1551 | 3p.pile{hpea}<br>3p.pile{hpeuigh}<br>3p.pile{hpesvp}<br>3p.pile{hpenssp}<br>3p.pile{hpensp} | GGCCCTCGGC<br>GGCCCTCGGC<br>GGCCCTCGGC<br>GGCCCTAGGC<br>GGCCCTAGGG     | CTATTTGCT<br>CTATTTGCT<br>CTATTTGCT<br>CTCTTTGCT<br>CTGTTCTGTT          | GTTGCTCCTC<br>GTTGCTCCTC<br>GCTGCTCCTC<br>GTTGTTCCCT<br>GTTGTTCCCT | ATGTTTCTGC<br>ATGTTTCTGC<br>ATGTTTCTGC<br>ATGTTTCTGC<br>ATGTTTCTGC   | CTATGCTGCC<br>CTATGCTGCC<br>CTATGCTGCC<br>CTATGTTGCC<br>CTATGTTGCC |
| 1551 | 3p.pile{hpea}<br>3p.pile{hpeuigh}<br>3p.pile{hpesvp}<br>3p.pile{hpenssp}<br>3p.pile{hpensp} | GGCCCTCGGC<br>GGCCCTCGGC<br>GGCCCTCGGC<br>GGCCCTAGGC<br>GGCCCTAGGG     | CTATTTGCT<br>CTATTTGCT<br>CTATTTGCT<br>CTCTTTGCT<br>CTGTTCTGTT          | GTTGCTCCTC<br>GTTGCTCCTC<br>GCTGCTCCTC<br>GTTGTTCCCT<br>GTTGTTCCCT | ATGTTTCTGC<br>ATGTTTCTGC<br>ATGTTTCTGC<br>ATGTTTCTGC<br>ATGTTTCTGC   | CTATGCTGCC<br>CTATGCTGCC<br>CTATGCTGCC<br>CTATGTTGCC<br>CTATGTTGCC |
| 1551 | 3p.pile{hpea}<br>3p.pile{hpeuigh}<br>3p.pile{hpesvp}<br>3p.pile{hpenssp}<br>3p.pile{hpensp} | GGCCCTCGGC<br>GGCCCTCGGC<br>GGCCCTCGGC<br>GGCCCTAGGC<br>GGCCCTAGGG     | CTATTTGCT<br>CTATTTGCT<br>CTATTTGCT<br>CTCTTTGCT<br>CTGTTCTGTT          | GTTGCTCCTC<br>GTTGCTCCTC<br>GCTGCTCCTC<br>GTTGTTCCCT<br>GTTGTTCCCT | ATGTTTCTGC<br>ATGTTTCTGC<br>ATGTTTCTGC<br>ATGTTTCTGC<br>ATGTTTCTGC   | CTATGCTGCC<br>CTATGCTGCC<br>CTATGCTGCC<br>CTATGTTGCC<br>CTATGTTGCC |

FIGURE 9E

1601 3p.pile{hpea} CGCGCCACCG CCCGGTCAGC CGTCTGGCCG CCGTCGTGGG CGGCCAGCG  
 3p.pile{hpeuigh} CGCGCCACCG CCCGGTCAGC CGTCTGGCCG CCGTCGTGGG CGGCCAGCG  
 3p.pile{hpesvp} CGCGCCACCG CCCGGTCAGC CGTCTGGCCG CCGTCGTGGG CGGCCAGCG  
 3p.pile{hpenssp} CGCGCCACCG ACCGGTCAGC CGTCTGGCCG CCGTCGTGGG CGGCCAGCG  
 3p.pile{840453p} CGCGCCACCG GCCGGTCAGC CGTCTGGCCG TCGCCGTGGG CGGCCAGCG  
 Consensus CGCGCCACCG -CCGGTCAGC CGTCTGGCCG -CG-CGTGGG CGGCCAGCG

1650 1651 1701 1750

3p.pile{hpea} GCGGTTCGG CGGTGGTTT CGGTGGTAC GGGTGTGATT  
 3p.pile{hpeuigh} GCGGTTCGG CGGTGGTTT CGGTGGTAC GGGTGTGATT  
 3p.pile{hpesvp} GCGGTTCGG CGGTGGTTT CGGTGGTAC GGGTGTGATT  
 3p.pile{hpenssp} GCGGTACGG CGGTGGTTT CGGTGGTAC GGGTGTGATT  
 3p.pile{840453p} GCGGTGGCG CGGTGGTTT TGGAGTGACA GGGTGTGATT  
 Consensus GCGGT-CCGG CGGTGGTTT TGG-GTGAC- GCGGTGATT  

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3p.pile{hpea} GCAATCCCC ATATTCAATCC AACCAACCC TTTCGCCCCG ATGTCACCGC  
 3p.pile{hpeuigh} GCAATCCCC ATATTCAATCC AACCAACCC TTTCGCCCCG ATGTCACCGC  
 3p.pile{hpesvp} GCAATCCCC ATATTCAATCC AACCAACCC TTTCGCCCCG ATGTCACCGC  
 3p.pile{hpenssp} GCAATCCCC ATATTCAATCC AACCAACCC TTTCGCCCCG ATGTCACCGC  
 3p.pile{840453p} GCAATCCCC ATATTCAATCC AACCAACCC TTTCGCCCCG ATGTCACCGC  
 Consensus GC-TCCCT ATATTCAATCC AACCAACCC TT-GCC-C-G A-GT-----

FIGURE 9F

|      |                  |                              |                   |                   |                   |                   |
|------|------------------|------------------------------|-------------------|-------------------|-------------------|-------------------|
| 2651 | 3p.pile{hpea}    | AGCGCTTACC                   | CTGTTAAC          | TTGCTGACAC        | CCTGCTTGGC        | GGTCTACCGA        |
|      | 3p.pile{hpeuigh} | AGCGCTTACC                   | CTGTTAAC          | TTGCTGACAC        | CCTGCTTGGC        | GGTCTACCGA        |
|      | 3p.pile{hpesvp}  | AGCCCTCACC                   | CTGTTAAC          | TTGCTGACAC        | TCTGCTTGGC        | GGCCTGCCGA        |
|      | 3p.pile{hpenssp} | AGCTCTAAC                    | TTACTTAACC        | TTGCTGACAC        | GCTCCTCGGC        | GGGCTCCCGA        |
|      | 3p.pile{840453p} | TGCCCTGACT                   | CTGTTAAC          | TTGCTGATAC        | GCTTCTTGGT        | GGTTAACCGA        |
|      | Consensus        | -GC-CT-AC-                   | -T--T-AA-C        | TTGCTGA-AC        | -CT-CT-GG-        | GG--T-CCGA        |
| 2701 | 3p.pile{hpea}    | CAGAATTGAT                   | TTCGTCGGCT        | GGTGGCCAGC        | TGTTCTACTC        | TCGGCCCCGTIC      |
|      | 3p.pile{hpeuigh} | CAGAATTGAT                   | TTCGTCGGCT        | GGTGGCCAGC        | TGTTCTACTC        | TCGGCCCCGTIC      |
|      | 3p.pile{hpesvp}  | CAGAATTGAT                   | TTCGTCGGCT        | GGTGGCCAGC        | TGTTCTACTC        | TCGGCCCCGTIC      |
|      | 3p.pile{hpenssp} | CAGAATTAAAT                  | TTCGTCGGCT        | GGCGGGCAAC        | TGTTTTATTC        | CGGGCCGGTT        |
|      | 3p.pile{840453p} | CAGAATTGAT                   | TTCGTCGGCT        | GGGGGTCAAC        | TGTTTTACTC        | CGGGCCCTGT        |
|      | Consensus        | <b>CAGAATT-AT-TTCGTCGGCT</b> | <b>GG-GG-CA-C</b> | <b>TGTT-TA-TC</b> | <b>-CG-CC-CTT</b> |                   |
| 2751 | 3p.pile{hpea}    | GTCTCAGCCA                   | ATGGCGAGCC        | GACTGTTAAC        | CTGTATACT         | CTGTGGAGAA        |
|      | 3p.pile{hpeuigh} | GTCTCAGCCA                   | ATGGCGAGCC        | GACTGTTAAC        | CTGTATACT         | CTGTAGAGAA        |
|      | 3p.pile{hpesvp}  | GTCTCAGCCA                   | ATGGCGAGCC        | GACTGTTAAC        | TTGTATACT         | CTGTAGAGAA        |
|      | 3p.pile{hpenssp} | GTCTCAGCCA                   | ATGGCGAGCC        | AACCGTGAAG        | CTCTATACT         | CAGTGGAGAA        |
|      | 3p.pile{840453p} | GTCTCAGCCA                   | ATGGCGAGCC        | AACAGTAaAG        | TTATACACAT        | CTGTtGAGAA        |
|      | Consensus        | <b>GTCTCAGCCA</b>            | <b>ATGGCGAGCC</b> | <b>-AC-GT-AAG</b> | <b>-T-TA-ACAT</b> | <b>C-GT-GAGAA</b> |
| 2700 | 3p.pile{hpea}    | CAGAATTGAT                   | TTCGTCGGCT        | GGTGGCCAGC        | TGTTCTACTC        | TCGGCCCCGTIC      |
|      | 3p.pile{hpeuigh} | CAGAATTGAT                   | TTCGTCGGCT        | GGTGGCCAGC        | TGTTCTACTC        | TCGGCCCCGTIC      |
|      | 3p.pile{hpesvp}  | CAGAATTGAT                   | TTCGTCGGCT        | GGTGGCCAGC        | TGTTCTACTC        | TCGGCCCCGTIC      |
|      | 3p.pile{hpenssp} | CAGAATTAAAT                  | TTCGTCGGCT        | GGCGGGCAAC        | TGTTTTATTC        | CGGGCCGGTT        |
|      | 3p.pile{840453p} | CAGAATTGAT                   | TTCGTCGGCT        | GGGGGTCAAC        | TGTTTTACTC        | CGGGCCCTGT        |
|      | Consensus        | <b>CAGAATT-AT-TTCGTCGGCT</b> | <b>GG-GG-CA-C</b> | <b>TGTT-TA-TC</b> | <b>-CG-CC-CTT</b> |                   |

FIGURE 9G

|      |                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                     |      |
|------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 2801 | <pre> 3p.pile{hpea} 3p.pile{hpeuigh} 3p.pile{hpesvp} 3p.pile{hpesssp} 3p.pile{840453p} Consensus </pre> | <pre> TGCTCAGCAG GATAAGGGTA TTGCAAATCCC GCATGACATC GACCTCGGGG TGCTCAGCAG GATAAGGGTA TTGCAAATCCC GCATGACATC GACCTCGGGG TGCTCAGCAG GATAAGGGTA TTGCAAATCCC GCATGACATC GACCTCGGGG TGCTCAGCAG GATAAGGGTG TTGCTATCCC CCACGATATC GATCTTGGTG TGCGCAAGCAA GACAAAGGGca TcaccatTCC ACACGACATA gATTAGGTG TGC-CAGCA- GA-AAGGG-- T--C-AT-CC -CA-GA-AT- GA--T-GG-G </pre>          | 2850 |
| 2851 | <pre> 3p.pile{hpea} 3p.pile{hpeuigh} 3p.pile{hpesvp} 3p.pile{hpesssp} 3p.pile{840453p} Consensus </pre> | <pre> AATCCCGTGT AGTTATTTCAG GATTATGACA ACCAACATGA GCAGGGACCGGA AATCTCGAGT TGTTATTTCAG GATTATGACA ACCAACATGA GCAGGGACCGG AATCTCGTGT GGTTATTTCAG GATTATGATA ACCAACATGA ACAAGATCGG ATTCCGGTGT GGTCAATTTCAG GATTATGACA ACCAGGATCATGA GCAGGGATCGG ACTCCCGTGT GGTTATCCAG gattatgata ACCaggacgaa acaAgatcga A-TC-CG-GT -GT-AT-CAG GATTATGACA ACCAACATGA -CA-GA-CG- </pre> | 2900 |

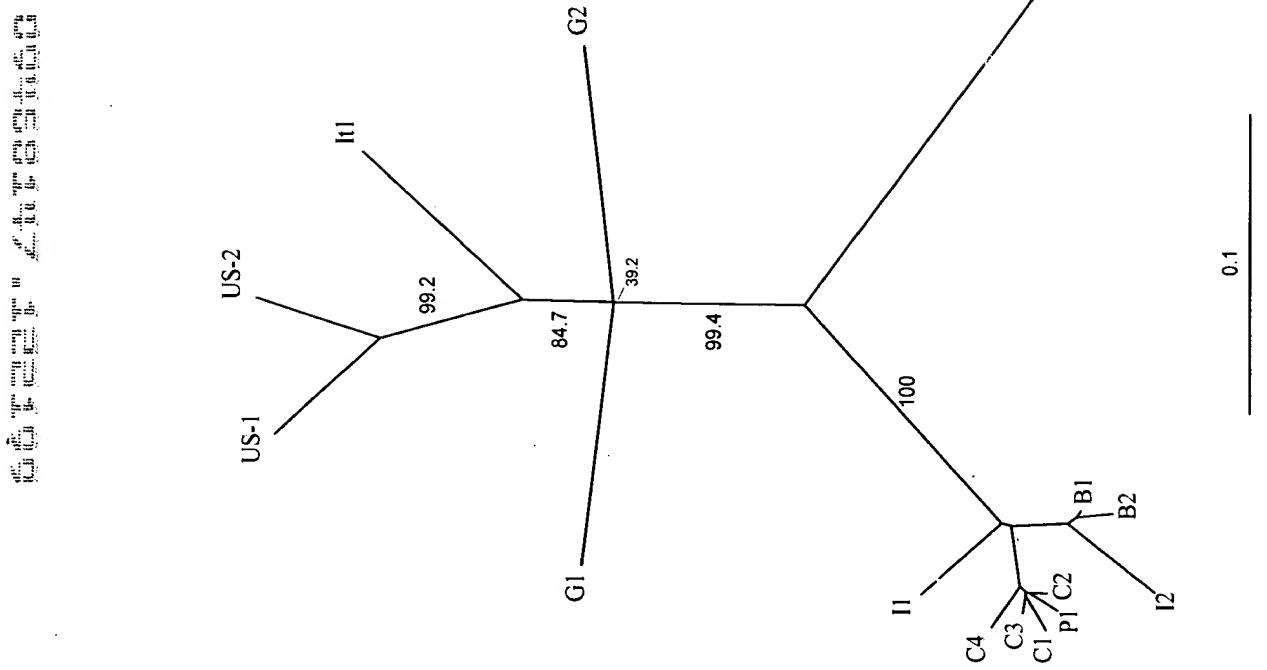


Figure 10

US-1 US-2 S1 88.1 77.2 G1 33.9 30.6 G2 77.0 96.5 M1 I1 C1 C2 C3 C4 P1 B1 B2 I2 0.1

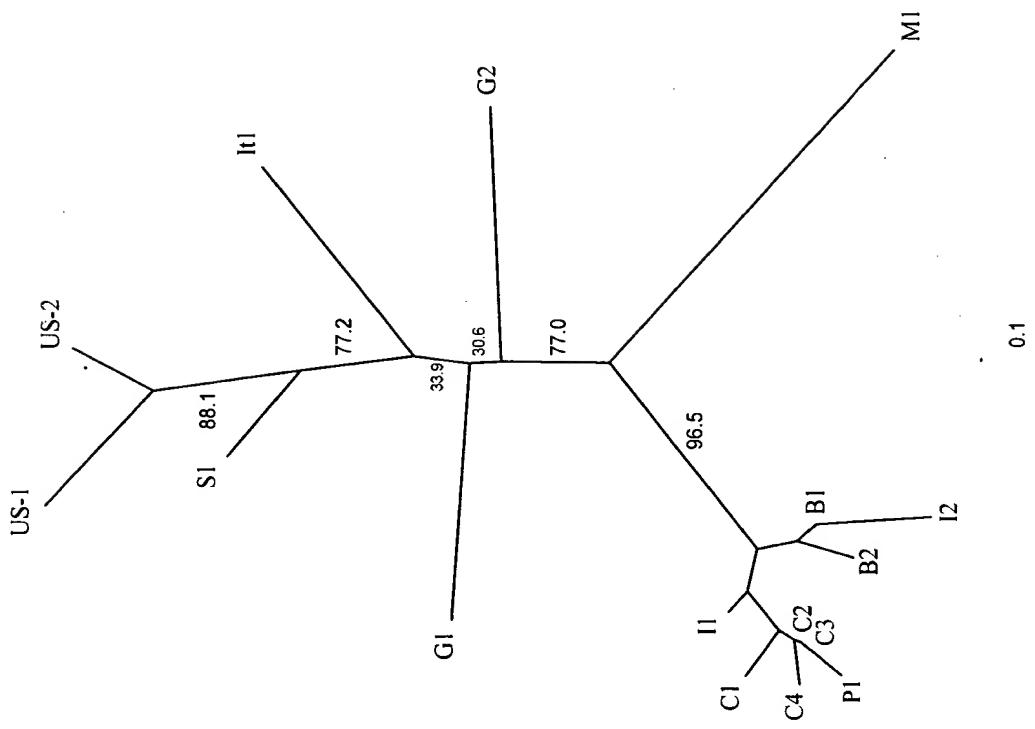
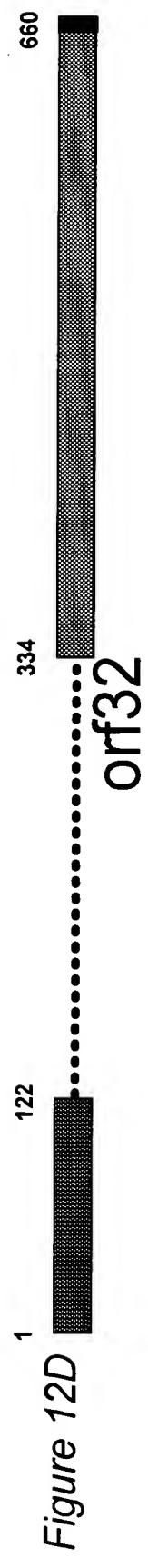
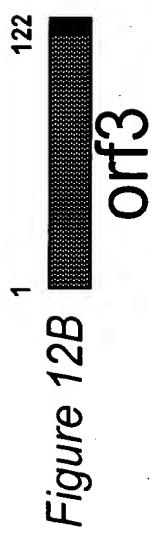
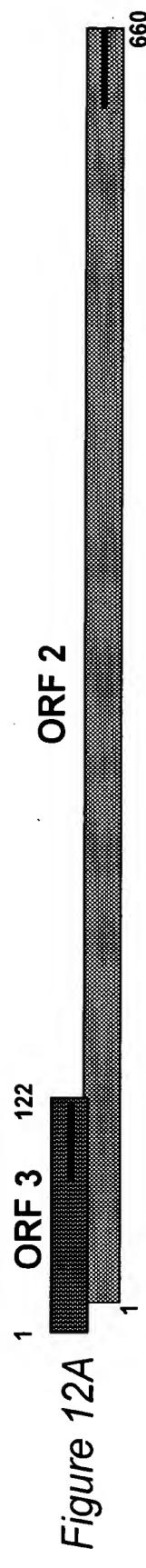


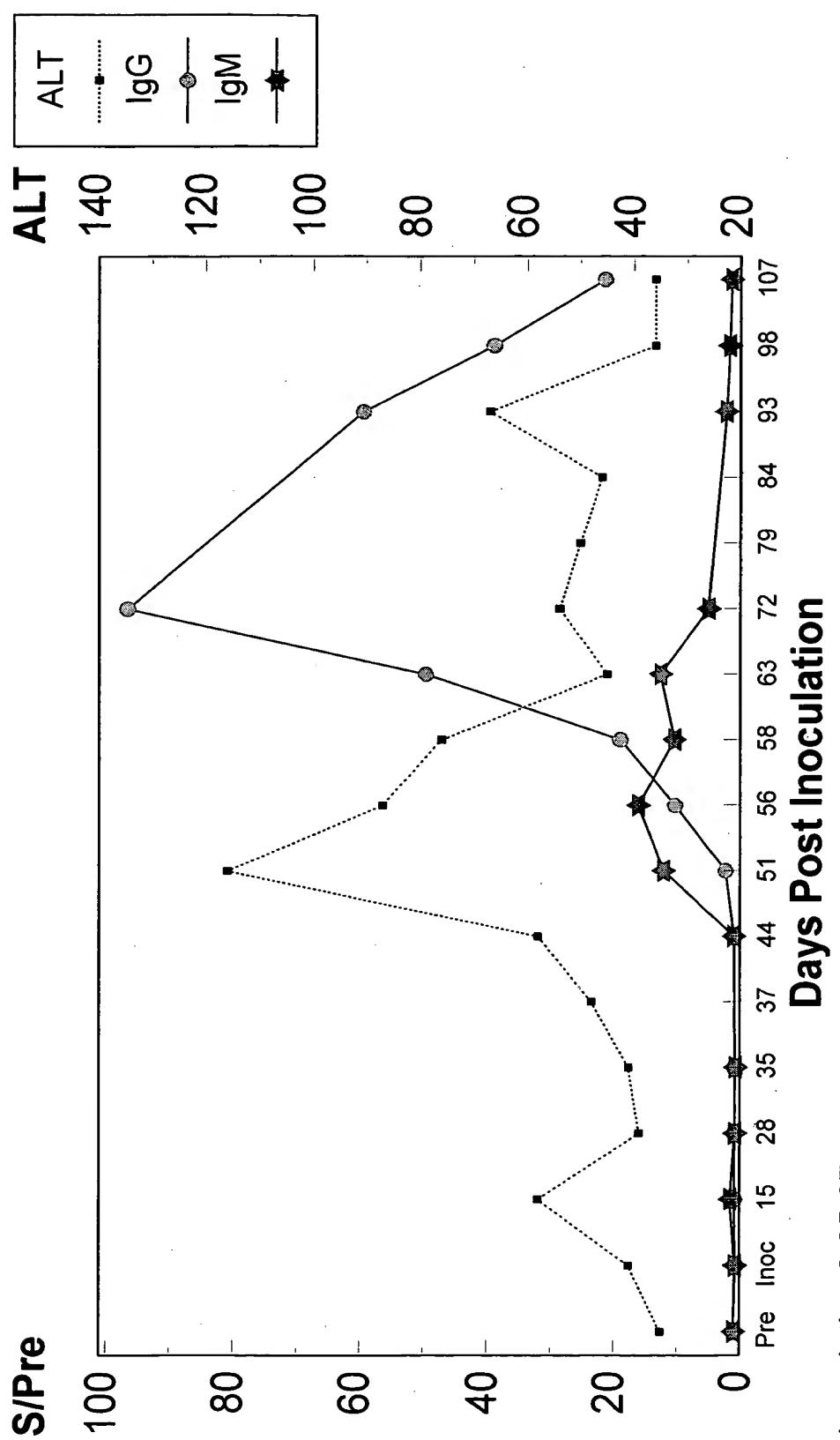
Figure 11



MACAQUE 13906

HEV US-2 ORF 3 CKS - 29

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Inoculation 8-25-97

Figure 13

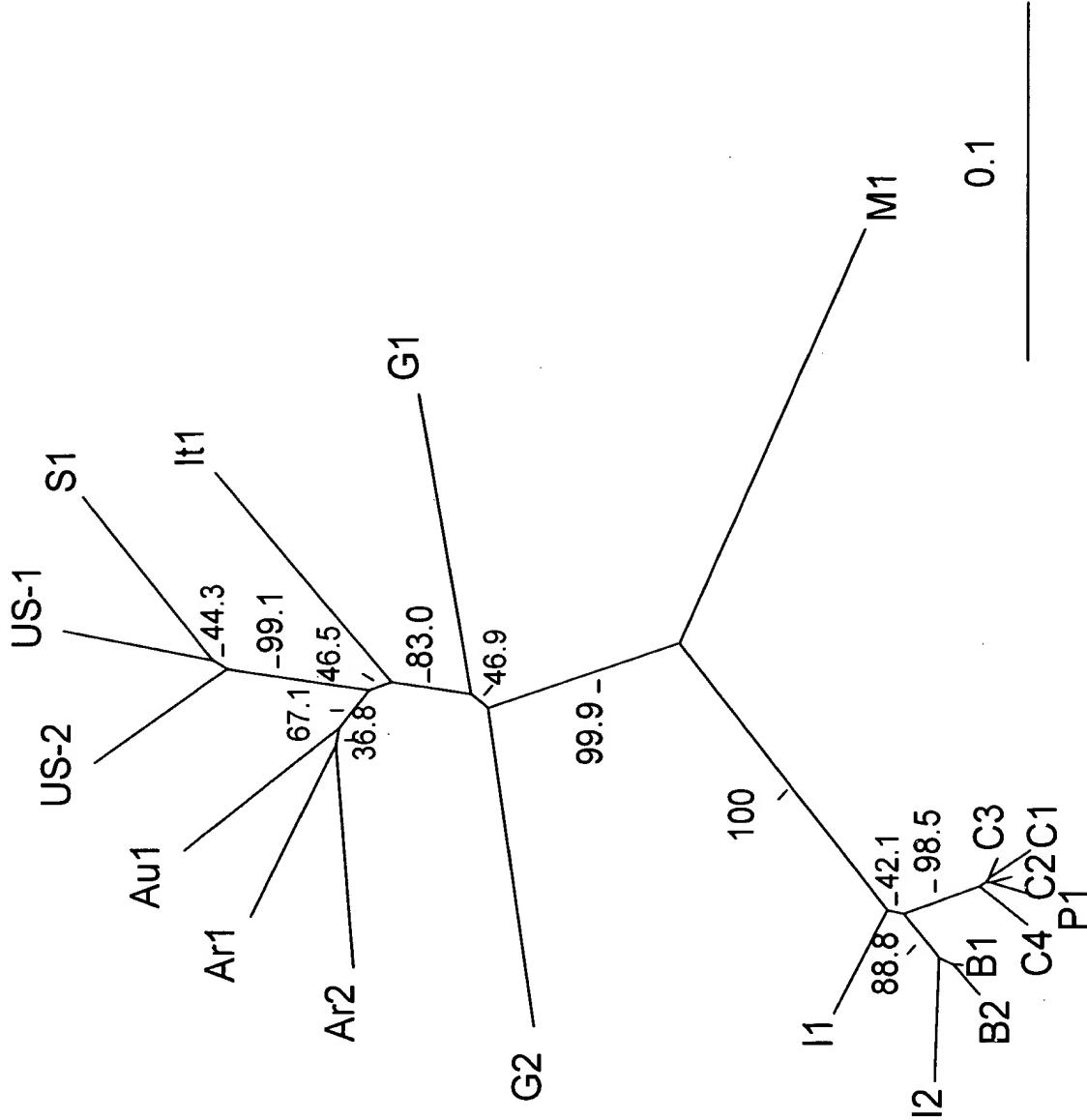


Figure 14

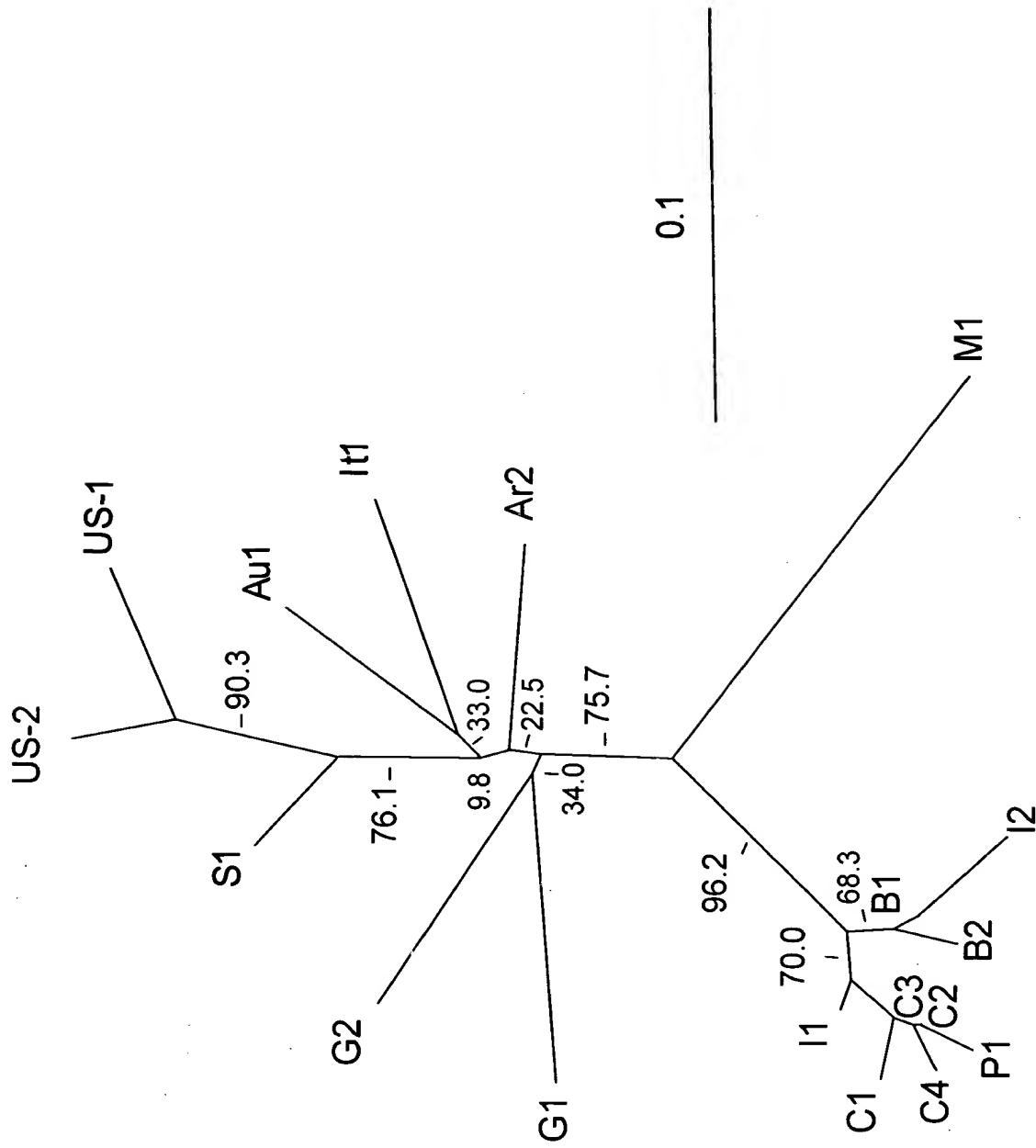


Figure 15

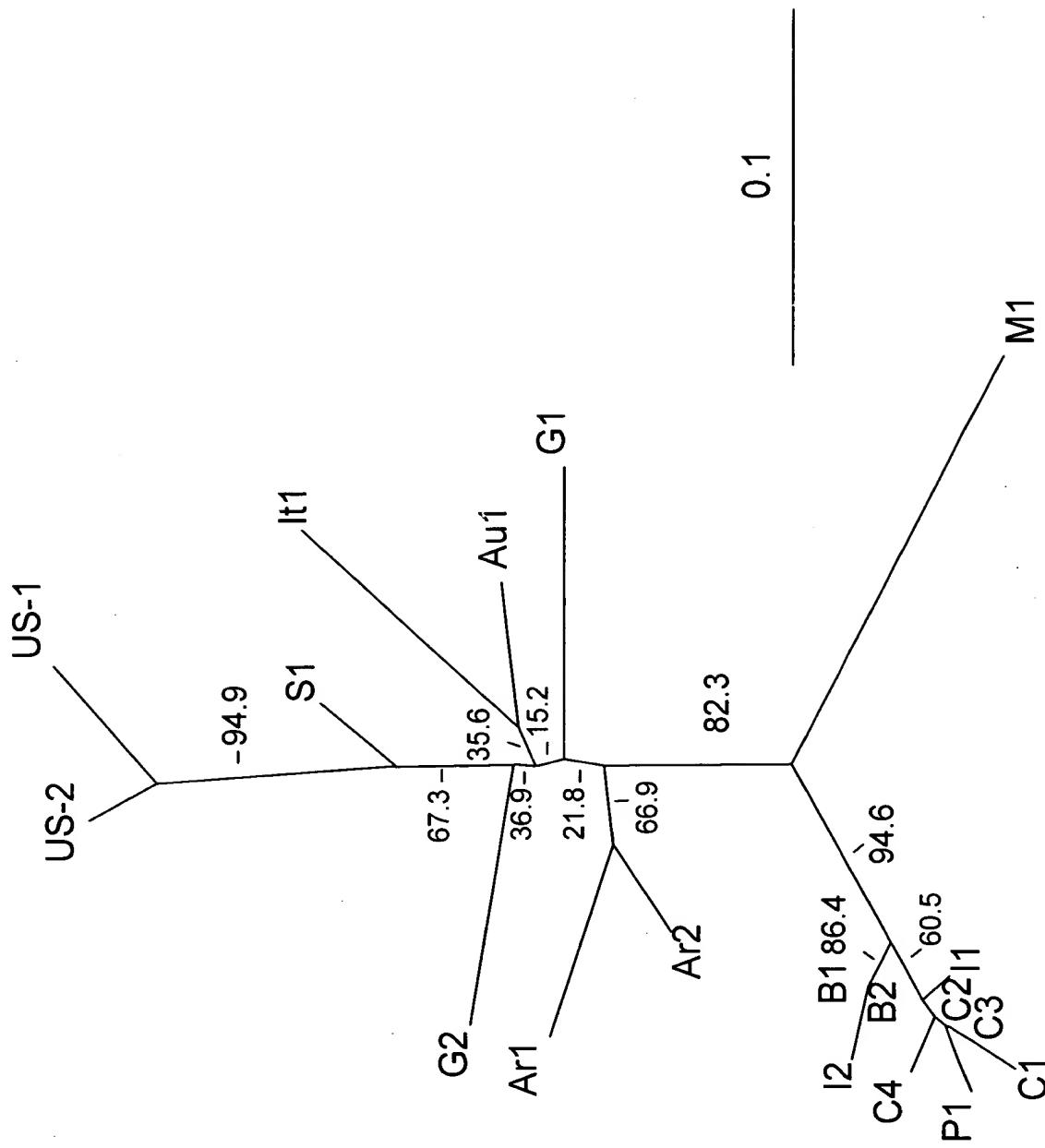


Figure 16